# MUTUAL ACTION VIDEO GAME EXERCISING DEVICE

## FIELD OF THE INVENTION

The present invention relates to a video game exercising device which adjusts the levels of difficulty according the preset values of heart rate and responses such as hot air blowing or oxygen providing are provided with the result of the game.

## BACKGROUND OF THE INVENTION

A conventional video game difficulty level adjuster dependent upon player's aerobic activity level during exercise is disclosed in U.S. Patent No. 5,001,632. The exerciser has to reach the preset heart rate so as to have the result of change of the game. Nevertheless, the video game can only provide a two-dimensional game and the only goal that the exerciser needs to reach is the heart rate so that it is slightly boring for the exercisers. U.S. Patent No. 4,720,789 discloses another video game which is cooperated with sort of dance action which requires the exerciser to move his or her feet according to the instruction at different levels of speed. This game cannot be adjusted to meet different requirements of the exercisers.

The present invention intends to provide a mutual action video game exercising device which includes a video monitor or screen to show the sites of the situations that the exercisers are in and the exerciser has to reach the preset conditions to get the response from the device.

## SUMMARY OF THE INVENTION

In accordance with one aspect of the present invention, there is provided an exercising device which comprises an exercising assembly for users to take exercise and the exercising assembly is electronically connected to a video game device so that the user has to operate the exercising assembly according to the display information of the video game device. A control device is connected to the exercising assembly and receives information of heart rate of users. A plurality of response devices are connected to the exercising assembly and controlled by the controlling device. The response devices are activated according to the information of heart rate of users and information from the video game device.

The present invention will become more obvious from the following description when taken in connection with the accompanying drawings which show, for purposes of illustration only, a preferred embodiment in accordance with the present invention.

## BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 shows a block diagram of the exercising device of the present invention;

Fig. 2 shows the parts of the video game and the way communicating between the video game and the controlling device;

Fig. 3 shows processes regarding the heart rate of the exercising assembly, and

Fig. 4 shows the response devices being activated according to the information from the video game.

## DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to Figs. 1 to 4, the mutual action video game exercising device of the present invention comprises an exercising assembly such as a bicycle exerciser which is electronically connected to a video game device including a monitor or display device. A control device is connected to the exercising assembly and receives information of heart rate of users. A plurality of response devices are connected to the exercising assembly and controlled by the controlling device. The response devices are activated according to the information of heart rate of users and information from the video game device.

The video game device includes an image or video processing device (NTSC or PAL), audio processing device, CPU, data reading device, and communication interfaces (RS232 or IR). The heart rate of the user is sent to the communication interfaces via wire or wireless means and the data reading device reads the data and processed by the CPU. The result of the data processed by the CPU is sent to the video game device to change the sites or conditions in the game in a form of audio or video feature. The change is then sent to the communication interface which provides commands to the control device so as to activate the response devices.

The response devices includes a fan device, an oxygen providing device, a hot-air blowing device, a negative ion generating device, and/or a resistance device connected to the exercising assembly.

The game can be a BMX bicycle venture and frame of the bicycle is connected to a base which is able to swing in different directions so that the user

feels like riding in different sites such as in jungle, desert, beach or the like. The user first input his or her age, height, weight, period of playing, the exercising device calculates the range of the heart rate of the user, 100 to 60, for example. There are several stages that the user has to reach the preset heart rate, and if the user reaches the preset heart rate, oxygen, negative ion, or air flow is provided as a treat, and scores are added. On the other hand, if the user fails to reach the preset heart rate, hot air or high resistance is suffered. When the user goes on an uphill by operating a tilting device of the exerciser and reaches the heart rate, oxygen is provided to the user. When the user rides in a forest and reaches the heart rate, negative ion is provided to the user. When the user rides on a downhill and reaches the heart rate, air flow made by the fan device is provided to the user. If the user cannot meet the requirements, the site is stopped and scores are reduced.

While we have shown and described the embodiment in accordance with the present invention, it should be clear to those skilled in the art that further embodiments may be made without departing from the scope of the present invention.